GRADE 9 · ALGEBRAIC EXPRESSIONS

Multiplying Binomials: $(x+2)(x+3)$ and Beyond

MEMORANDUM

Name: ..... Class: .....

Date: .....

MARK ____ / 17

Answer all questions. Show all your working — marks are awarded for method as well as the final answer. **Teacher copy: accept any correct equivalent method.**

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1 Expand: $(x+1)(x+4)$ **(2)**

$x^2 + 4x + x + 4 = \mathbf{x^2 + 5x + 4}$ ✓✓ (2)

2 Expand: $(x+3)(x+6)$ **(2)**

$\mathbf{x^2 + 9x + 18}$ ✓✓ (2)

3 Expand: $(x-2)(x+7)$ **(2)**

$x^2 + 7x - 2x - 14 = \mathbf{x^2 + 5x - 14}$ ✓✓ (2)

4 Expand: $(x-3)(x-5)$ **(2)**

$x^2 - 5x - 3x + 15 = \mathbf{x^2 - 8x + 15}$ ✓✓ (2)

5 Expand: $(2x+1)(x+4)$ **(2)**

$2x^2 + 8x + x + 4 = \mathbf{2x^2 + 9x + 4}$ ✓✓ (2)

6 Expand: $(x+4)^2$ **(2)**

$\mathbf{x^2 + 8x + 16}$ ✓✓ (2)

7 Expand: $(x-6)^2$ **(2)**

$\mathbf{x^2 - 12x + 36}$ ✓✓ (2)

8 Expand: $(x+9)(x-9)$ **(1)**

$\mathbf{x^2 - 81}$ (difference of two squares) ✓ (1)

9 Expand: $(3x+2)(3x-2)$ **(2)**

$\mathbf{9x^2 - 4}$ ✓✓ (2)

TOTAL: 17 marks

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